

## SEQUENCE LISTING

SEQ ID No. 1 CM7 amino acid sequence

1 Met Gln Cys Asn Ala Pro Glu Trp Leu Pro  
11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Glu  
21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
51 Val Trp Thr Gly Ala Lys Asp Arg Cys Arg  
61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
71 Val Asn Gly Met Val His Val Ile Lys Gly  
81 Ile Gln Phe Gly Ser Gln Ile Lys Tyr Ser  
91 Cys Thr Lys Gly Tyr Arg Leu Ile Gly Ser  
101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asp  
111 Thr Val Ile Trp Asp Asn Glu Thr Pro Ile  
121 Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro  
131 Thr Ile Ala Asn Gly Asp Phe Thr Ser Ile  
141 Ser Arg Glu Tyr Phe His Tyr Gly Ser Val  
151 Val Thr Tyr His Cys Asn Leu Gly Ser Arg  
161 Gly Lys Lys Val Phe Glu Leu Val Gly Glu  
171 Pro Ser Ile Tyr Cys Thr Ser Lys Asp Asp  
181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
191 Gln Cys Ile Ile Pro Asn Lys

SEQ ID No. 2 CM7 DNA sequence

1 ATGCAGTGCA ACGCTCCGGA ATGGCTGCCG TTCGCGCGCC CGACCAACCT  
51 GACTGATGAA TTTGAGTTCC CGATCGGTAC CTACCTGAAC TACGAATGCC  
101 GCCCGGGTTA TAGCGGCCGC CCGTTTTCTA TCATCTGCCT GAAAAACTCT  
151 GTCTGGACTG GTGCTAAGGA CCGTTGCCGA CGTAAATCTT GTCGTAATCC  
201 GCCAGATCCG GTTAACGGCA TGGTGCAATG GATCAAAGGC ATCCAGTTCC  
251 GTTCCCAAAT TAAATATTCT TGTACTAAAG GTTACCGTCT GATTGGTTCC  
301 TCCAGCGCTA CATGCATCAT CTCTGGTGAT ACTGTCATTT GGGATAATGA  
351 AACACCGATT TGTGACCGAA TTCCGTGTGG TCTGCCGCCG ACCATCGCCA  
401 ACGGTGATTT CACCTCTATC AGTCGCGAGT ATTTTCACTA TGGTTCTGTG

09380688 101999 666101 28908360

43

451 GTGACCTACC ACTGCAATCT GGGTAGCCGT GGTA AAAAGG TGT TTGAGCT  
 501 CGTGGGTGAG CCGTCCATCT ACTGCACTAG CAAAGACGAT CAAGTGGGCA  
 551 TCTGGAGCGG CCCGGCACCG CAGTGCATCA TCCCGAACAA A

## SEQ ID No. 3 DNA sequence

1 CGACCATCGC CAACGGTGAT TTCACCTCTA TCAGTCGCGA GTATTTTCAC

## SEQ ID No. 4 DNA sequence

1 GTGAAAATAC TCGCGACTGA TAGAGGTGAA ATCACC GTTG GCGATGGTCG

## SEQ ID No. 5 DNA sequence

1 GACCTACCAC TGCAATCTGG GTAGCCGTGG TAAAAGGTG TTTGAGC

## SEQ ID No. 6 DNA sequence

1 GCTCAAACAC CTTTTTACCA CGGCTACCCA GATTGCAGTG GTAGGTC

## SEQ ID No. 7 DNA sequence

1 GCACTAGCAA AGACGATCAA GTGGG

## SEQ ID No. 8 DNA sequence

1 CCCACTTGAT CGTCCTTgCT AGTGC

## SEQ ID No. 9 CMI amino acid sequence

1 Met Gln Cys Asn Ala Pro Glu Trp Leu Pro  
 11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Glu  
 21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
 31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
 41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
 51 Val Trp Thr Gly Ala Lys Asp Arg Cys Arg  
 61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
 71 Val Asn Gly Met Val His Val Ile Lys Gly  
 81 Ile Gln Phe Gly Ser Gln Ile Lys Tyr Ser  
 91 Cys Thr Lys Gly Tyr Arg Leu Ile Gly Ser  
 101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asp  
 111 Thr Val Ile Trp Asp Asn Glu Thr Pro Ile  
 121 Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro  
 131 Thr Ile Ala Asn Gly Asp Phe Thr Ser Ile

09330682 101999  
 656707 229908250

44

141 Ser Arg Glu Tyr Phe His Tyr Gly Ser Val  
 151 Val Thr Tyr Arg Cys Asn Pro Gly Ser Gly  
 161 Gly Arg Lys Val Phe Glu Leu Val Gly Glu  
 171 Pro Ser Ile Tyr Cys Thr Ser Asn Asp Asp  
 181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
 191 Gln Cys Ile Ile Pro Asn Lys

## SEQ ID No. 10 CM1 DNA sequence

1 ATGCAGTGCA ACGCTCCGGA ATGGCTGCCG TTCGCGCGCC CGACCAACCT  
 51 GACTGATGAA TTTGAGTTCC CGATCGGTAC CTACCTGAAC TACGAATGCC  
 101 GCCCGGGTTA TAGCGGCCGC CCGTTTTCTA TCATCTGCCT GAAAAACTCT  
 151 GTCTGGACTG GTGCTAAGGA CCGTTGCCGA CGTAAATCTT GTCGTAATCC  
 201 GCCAGATCCG GTTAACGGCA TGGTGCATGT GATCAAAGGC ATCCAGTTCG  
 251 GTTCCCAAAT TAAATATTCT TGTACTAAAG GTTACCGTCT GATTGGTTCC  
 301 TCCAGCGCTA CATGCATCAT CTCTGGTGAT ACTGTCATTT GGGATAATGA  
 351 AACACCGATT TGTGACCGAA TTCCGTGTGG TCTGCCGCCG ACCATCGCCA  
 401 ACGGTGATTT CACCTCTATC AGTCGCGAGT ATTTTCACTA TGGTTCTGTG  
 451 GTGACCTACC GCTGCAATCC GGGTAGCGGT GGTCGTAAGG TGTGAGCT  
 501 CGTGGGTGAG CCGTCCATCT ACTGCACTAG TAATGACGAT CAAGTGGGCA  
 551 TCTGGAGCGG CCCGGCACCG CAGTGCATCA TCCCGAACAA A

## SEQ ID No. 11 CM2 amino acid sequence

1 Met Gln Cys Asn Ala Pro Glu Trp Leu Pro  
 11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Glu  
 21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
 31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
 41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
 51 Val Trp Thr Gly Ala Lys Asp Arg Cys Arg  
 61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
 71 Val Asn Gly Met Val His Val Ile Lys Gly  
 81 Ile Gln Phe Gly Ser Gln Ile Lys Tyr Ser  
 91 Cys Thr Lys Gly Tyr Arg Leu Ile Gly Ser  
 101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asp  
 111 Thr Val Ile Trp Asp Asn Glu Thr Pro Ile  
 121 Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro  
 131 Thr Ile Thr Asn Gly Asp Phe Ile Ser Thr  
 141 Asn Arg Glu Asn Phe His Tyr Gly Ser Val

09380682 101999

45

151 Val Thr Tyr His Cys Asn Leu Gly Ser Arg  
 161 Gly Lys Lys Val Phe Glu Leu Val Gly Glu  
 171 Pro Ser Ile Tyr Cys Thr Ser Asn Asp Asp  
 181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
 191 Gln Cys Ile Ile Pro Asn Lys

## SEQ ID No. 12 CM2 DNA sequence

1 ATGCAGTGCA ACGCTCCGGA ATGGCTGCCG TTCGCGCGCC CGACCAACCT  
 51 GACTGATGAA TTTGAGTTCC CGATCGGTAC CTACCTGAAC TACGAATGCC  
 101 GCCCGGGTTA TAGCGGCCGC CCGTTTTCTA TCATCTGCCT GAAAAACTCT  
 151 GTCTGGACTG GTGCTAAGGA CCGTTGCCGA CGTAAATCTT GTCGTAATCC  
 201 GCCAGATCCG GTTAACGGCA TGGTGATGT GATCAAAGGC ATCCAGTTCG  
 251 GTTCCCAAAT TAAATATTCT TGTACTAAAG GTTACCGTCT GATTGGTTCC  
 301 TCCAGCGCTA CATGCATCAT CTCTGGTGAT ACTGTCAATTT GGGATAATGA  
 351 AACACCGATT TGTGACCGAA TTCCGTGTGG TCTGCCGCCG ACCATCACCA  
 401 ACGGTGATTT CATCTCTACC AATCGCGAGA ATTTTCACTA TGGTTCTGTG  
 451 GTGACCTACC ACTGCAATCT GGGTAGCCGT GGTA AAAAGG TGT TTGAGCT  
 501 CGTGGGTGAG CCGTCCATCT ACTGCACTAG TAATGACGAT CAAGTGGGCA  
 551 TCTGGAGCGG CCGGGCACCG CAGTGCATCA TCCCGAACAA A

## SEQ ID No. 13 CM3 amino acid sequence

1 Met Gln Cys Asn Ala Pro Glu Trp Leu Pro  
 11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Glu  
 21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
 31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
 41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
 51 Val Trp Thr Gly Ala Lys Asp Arg Cys Arg  
 61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
 71 Val Asn Gly Met Val His Val Ile Lys Gly  
 81 Ile Gln Phe Gly Ser Gln Ile Lys Tyr Ser  
 91 Cys Thr Lys Gly Tyr Arg Leu Ile Gly Ser  
 101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asp  
 111 Thr Val Ile Trp Asp Asn Glu Thr Pro Ile  
 121 Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro  
 131 Thr Ile Thr Asn Gly Asp Phe Ile Ser Thr  
 141 Asn Arg Glu Asn Phe His Tyr Gly Ser Val

09380632-10199

46

151 Val Thr Tyr Arg Cys Asn Pro Gly Ser Gly  
 161 Gly Arg Lys Val Phe Glu Leu Val Gly Glu  
 171 Pro Ser Ile Tyr Cys Thr Ser Lys Asp Asp  
 181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
 191 Gln Cys Ile Ile Pro Asn Lys

## SEQ ID No. 14 CM3 DNA sequence

1 ATGCAGTGCA ACGCTCCGGA ATGGCTGCCG TTCGCGCGCC CGACCAACCT  
 51 GACTGATGAA TTTGAGTTCC CGATCGGTAC CTACCTGAAC TACGAATGCC  
 101 GCCCGGGTTA TAGCGGCCGC CCGTTTTCTA TCATCTGCCT GAAAAACTCT  
 151 GTCTGGACTG GTGCTAAGGA CCGTTGCCGA CGTAAATCTT GTCGTAATCC  
 201 GCCAGATCCG GTTAACGGCA TGGTGCATGT GATCAAAGGC ATCCAGTTCC  
 251 GTTCCCAAAT TAAATATTCT TGTACTAAAG GTTACCGTCT GATTGGTTCC  
 301 TCCAGCGCTA CATGCATCAT CTCTGGTGAT ACTGTCATTT GGGATAATGA  
 351 AACACCGATT TGTGACCGAA TTCCGTGTGG TCTGCCGCCG ACCATCACCA  
 401 ACGGTGATTT CATCTCTACC AATCGCGAGA ATTTTCACTA TGGTTCTGTG  
 451 GTGACCTACC GCTGCAATCC GGGTAGCGGT GGTCGTAAGG TGTTTGAGCT  
 501 CGTGGGTGAG CCGTCCATCT ACTGCACTAG CAAAGACGAT CAAGTGGGCA  
 551 TCTGGAGCGG CCCGGCACCG CAGTGCATCA TCCCGAACAA A

## SEQ ID No. 15 CM5 amino acid sequence

1 Met Gln Cys Asn Ala Pro Glu Trp Leu Pro  
 11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Glu  
 21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
 31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
 41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
 51 Val Trp Thr Gly Ala Lys Asp Arg Cys Arg  
 61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
 71 Val Asn Gly Met Val His Val Ile Lys Gly  
 81 Ile Gln Phe Gly Ser Gln Ile Lys Tyr Ser  
 91 Cys Thr Lys Gly Tyr Arg Leu Ile Gly Ser  
 101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asp  
 111 Thr Val Ile Trp Asp Asn Glu Thr Pro Ile  
 121 Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro  
 131 Thr Ile Ala Asn Gly Asp Phe Thr Ser Ile  
 141 Ser Arg Glu Tyr Phe His Tyr Gly Ser Val

09380682 101999

47

151 Val Thr Tyr Arg Cys Asn Pro Gly Ser Gly  
 161 Gly Arg Lys Val Phe Glu Leu Val Gly Glu  
 171 Pro Ser Ile Tyr Cys Thr Ser Lys Asp Asp  
 181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
 191 Gln Cys Ile Ile Pro Asn Lys

## SEQ ID No. 16 CM5 DNA sequence

1 ATGCAGTGCA ACGCTCCGGA ATGGCTGCCG TTCGCGCGCC CGACCAACCT  
 51 GACTGATGAA TTTGAGTTCC CGATCGGTAC CTACCTGAAC TACGAATGCC  
 101 GCCCGGGTTA TAGCGGCCGC CCGTTTTCTA TCATCTGCCT GAAAAACTCT  
 151 GTCTGGACTG GTGCTAAGGA CCGTTGCCGA CGTAAATCTT GTCGTAATCC  
 201 GCCAGATCCG GTTAACGGCA TGGTGATGT GATCAAAGGC ATCCAGTTCC  
 251 GTTCCCAAAT TAAATATTCT TGTACTAAAG GTTACCGTCT GATTGGTTCC  
 301 TCCAGCGCTA CATGCATCAT CTCTGGTGAT ACTGTCAATT GGGATAATGA  
 351 AACACCGATT TGTGACCGAA TTCCGTGTGG TCTGCCGCCG ACCATCGCCA  
 401 ACGGTGATTT CACCTCTATC AGTCGCGAGT ATTTTCACTA TGGTTCTGTG  
 451 GTGACCTACC GCTGCAATCC GGGTAGCGGT GGTCGTAAGG TGTTTGAGCT  
 501 CGTGGGTGAG CCGTCCATCT ACTGCACTAG CAAAGACGAT CAAGTGGGCA  
 551 TCTGGAGCGG CCCGGCACCG CAGTGCAATCA TCCCGAACAA A

## SEQ ID No. 17 CM6 amino acid sequence

1 Met Gln Cys Asn Ala Pro Glu Trp Leu Pro  
 11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Glu  
 21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
 31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
 41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
 51 Val Trp Thr Gly Ala Lys Asp Arg Cys Arg  
 61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
 71 Val Asn Gly Met Val His Val Ile Lys Gly  
 81 Ile Gln Phe Gly Ser Gln Ile Lys Tyr Ser  
 91 Cys Thr Lys Gly Tyr Arg Leu Ile Gly Ser  
 101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asp  
 111 Thr Val Ile Trp Asp Asn Glu Thr Pro Ile  
 121 Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro  
 131 Thr Ile Thr Asn Gly Asp Phe Ile Ser Thr  
 141 Asn Arg Glu Asn Phe His Tyr Gly Ser Val

09380632-101999

48

151 Val Thr Tyr His Cys Asn Leu Gly Ser Arg  
 161 Gly Lys Lys Val Phe Glu Leu Val Gly Glu  
 171 Pro Ser Ile Tyr Cys Thr Ser Lys Asp Asp  
 181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
 191 Gln Cys Ile Ile Pro Asn Lys

## SEQ ID No. 18 CM6 DNA sequence

1 ATGCAGTGCA ACGCTCCGGA ATGGCTGCCG TTCGCGCGCC CGACCAACCT  
 51 GACTGATGAA TTTGAGTTCC CGATCGGTAC CTACCTGAAC TACGAATGCC  
 101 GCCCGGGTTA TAGCGGCCGC CCGTTTTCTA TCATCTGCCT GAAAAACTCT  
 151 GTCTGGACTG GTGCTAAGGA CCGTTGCCGA CGTAAATCTT GTCGTAATCC  
 201 GCCAGATCCG GTTAACGGCA TGGTGCATGT GATCAAAGGC ATCCAGTTCC  
 251 GTTCCCAAAT TAAATATTCT TGTACTAAAG GTTACCGTCT GATTGGTTCC  
 301 TCCAGCGCTA CATGCATCAT CTCTGGTGAT ACTGTCATTT GGGATAATGA  
 351 AACACCGATT TGTGACCGAA TTCCGTGTGG TCTGCCGCCG ACCATCACCA  
 401 ACGGTGATTT CATCTCTACC AATCGCGAGA ATTTTCACTA TGGTTCTGTG  
 451 GTGACCTACC ACTGCAATCT GGGTAGCCGT GGTAAAAAGG TGTTTGAGCT  
 501 CGTGGGTGAG CCGTCCATCT ACTGCACTAG CAAAGACGAT CAAGTGGGCA  
 551 TCTGGAGCGG CCCGGCACCG CAGTGCATCA TCCCGAACAA A

## SEQ ID No. 19 CM8 amino acid sequence

1 Met Arg Ile Pro Cys Gly Leu Pro Pro Thr  
 11 Ile Ala Asn Gly Asp Phe Thr Ser Ile Ser  
 21 Arg Glu Tyr Phe His Tyr Gly Ser Val Val  
 31 Thr Tyr Arg Cys Asn Pro Gly Ser Gly Gly  
 41 Arg Lys Val Phe Glu Leu Val Gly Glu Pro  
 51 Ser Ile Tyr Cys Thr Ser Asn Asp Asp Gln  
 61 Val Gly Ile Trp Ser Gly Pro Ala Pro Gln  
 71 Cys Ile Ile Pro Asn Lys

09330662-104999

## SEQ ID No. 20 CM8 DNA sequence

1 ATGCGAATTC CGTGTGGTCT GCCGCCGACC ATCGCCAACG GTGATTTCAC  
51 CTCTATCAGT CGCGAGTATT TTCACTATGG TTCTGTGGTG ACCTACCGCT  
101 GCAATCCGGG TAGCGGTGGT CGTAAGGTGT TTGAGCTCGT GGGTGAGCCG  
151 TCCATCTACT GCACTAGTAA TGACGATCAA GTGGGCATCT GGAGCGGCCC  
201 GGCACCGCAG TGCATCATCC CGAACAAA

## SEQ ID No. 21 CM9 amino acid sequence

1 Met Arg Ile Pro Cys Gly Leu Pro Pro Thr  
11 Ile Thr Asn Gly Asp Phe Ile Ser Thr Asn  
21 Arg Glu Asn Phe His Tyr Gly Ser Val Val  
31 Thr Tyr His Cys Asn Leu Gly Ser Arg Gly  
41 Lys Lys Val Phe Glu Leu Val Gly Glu Pro  
51 Ser Ile Tyr Cys Thr Ser Asn Asp Asp Gln  
61 Val Gly Ile Trp Ser Gly Pro Ala Pro Gln  
71 Cys Ile Ile Pro Asn Lys

## SEQ ID No. 22 CM9 DNA sequence

1 ATGCGAATTC CGTGTGGTCT GCCGCCGACC ATCACCAACG GTGATTTCAT  
51 CTCTACCAAT CGCGAGAATT TTCACTATGG TTCTGTGGTG ACCTACCACT  
101 GCAATCTGGG TAGCCGTGGT AAAAAGGTGT TTGAGCTCGT GGGTGAGCCG  
151 TCCATCTACT GCACTAGTAA TGACGATCAA GTGGGCATCT GGAGCGGCCC  
201 GGCACCGCAG TGCATCATCC CGAACAAA

## SEQ ID No. 23 CM10 amino acid sequence

1 Met Arg Ile Pro Cys Gly Leu Pro Pro Thr  
11 Ile Thr Asn Gly Asp Phe Ile Ser Thr Asn  
21 Arg Glu Asn Phe His Tyr Gly Ser Val Val  
31 Thr Tyr Arg Cys Asn Pro Gly Ser Gly Gly  
41 Arg Lys Val Phe Glu Leu Val Gly Glu Pro  
51 Ser Ile Tyr Cys Thr Ser Lys Asp Asp Gln  
61 Val Gly Ile Trp Ser Gly Pro Ala Pro Gln  
71 Cys Ile Ile Pro Asn Lys

09380682-10169



## SEQ ID No. 24 CM10 DNA sequence

1 ATGCGAATTC CGTGTGGTCT GCCGCCGACC ATCACCAACG GTGATTTCAT  
51 CTCTACCAAT CGCGAGAATT TTCACTATGG TTCTGTGGTG ACCTACCGCT  
101 GCAATCCGGG TAGCGGTGGT CGTAAGGTGT TTGAGCTCGT GGGTGAGCCG  
151 TCCATCTACT GCACTAGCAA AGACGATCAA GTGGGCATCT GGAGCGGCCC  
201 GGCACCGCAG TGCATCATCC CGAACAAA

## SEQ ID No. 25 CM12 amino acid sequence

1 Met Arg Ile Pro Cys Gly Leu Pro Pro Thr  
11 Ile Ala Asn Gly Asp Phe Thr Ser Ile Ser  
21 Arg Glu Tyr Phe His Tyr Gly Ser Val Val  
31 Thr Tyr Arg Cys Asn Pro Gly Ser Gly Gly  
41 Arg Lys Val Phe Glu Leu Val Gly Glu Pro  
51 Ser Ile Tyr Cys Thr Ser Lys Asp Asp Gln  
61 Val Gly Ile Trp Ser Gly Pro Ala Pro Gln  
71 Cys Ile Ile Pro Asn Lys

## SEQ ID No. 26 CM12 DNA sequence

1 ATGCGAATTC CGTGTGGTCT GCCGCCGACC ATCGCCAACG GTGATTTCAC  
51 CTCTATCAGT CGCGAGTATT TTCACTATGG TTCTGTGGTG ACCTACCGCT  
101 GCAATCCGGG TAGCGGTGGT CGTAAGGTGT TTGAGCTCGT GGGTGAGCCG  
151 TCCATCTACT GCACTAGCAA AGACGATCAA GTGGGCATCT GGAGCGGCCC  
201 GGCACCGCAG TGCATCATCC CGAACAAA

## SEQ ID No. 27 CM13 amino acid sequence

1 Met Arg Ile Pro Cys Gly Leu Pro Pro Thr  
11 Ile Thr Asn Gly Asp Phe Ile Ser Thr Asn  
21 Arg Glu Asn Phe His Tyr Gly Ser Val Val  
31 Thr Tyr His Cys Asn Leu Gly Ser Arg Gly  
41 Lys Lys Val Phe Glu Leu Val Gly Glu Pro  
51 Ser Ile Tyr Cys Thr Ser Lys Asp Asp Gln  
61 Val Gly Ile Trp Ser Gly Pro Ala Pro Gln  
71 Cys Ile Ile Pro Asn Lys

09380637-101999

## SEQ ID No. 28 CM13 DNA sequence

1 ATGCGAATTC CGTGTGGTCT GCCGCCGACC ATCACCAACG GTGATTTCAT  
51 CTCTACCAAT CGCGAGAATT TTCACTATGG TTCTGTGGTG ACCTACCACT  
101 GCAATCTGGG TAGCCGTGGT AAAAAGGTGT TTGAGCTCGT GGGTGAGCCG  
151 TCCATCTACT GCACTAGCAA AGACGATCAA GTGGGCATCT GGAGCGGCCC  
201 GGCACCGCAG TGCATCATCC CGAACAAA

## SEQ ID No. 29 CM14 amino acid sequence

1 Met Arg Ile Pro Cys Gly Leu Pro Pro Thr  
11 Ile Ala Asn Gly Asp Phe Thr Ser Ile Ser  
21 Arg Glu Tyr Phe His Tyr Gly Ser Val Val  
31 Thr Tyr His Cys Asn Leu Gly Ser Arg Gly  
41 Lys Lys Val Phe Glu Leu Val Gly Glu Pro  
51 Ser Ile Tyr Cys Thr Ser Lys Asp Asp Gln  
61 Val Gly Ile Trp Ser Gly Pro Ala Pro Gln  
71 Cys Ile Ile Pro Asn Lys

## SEQ ID No. 30 CM14 DNA sequence

1 ATGCGAATTC CGTGTGGTCT GCCGCCGACC ATCGCCAACG GTGATTTCAC  
51 CTCTATCAGT CGCGAGTATT TTCACTATGG TTCTGTGGTG ACCTACCACT  
101 GCAATCTGGG TAGCCGTGGT AAAAAGGTGT TTGAGCTCGT GGGTGAGCCG  
151 TCCATCTACT GCACTAGCAA AGACGATCAA GTGGGCATCT GGAGCGGCCC  
201 GGCACCGCAG TGCATCATCC CGAACAAA

## SEQ ID No. 31 CM7/cys amino acid sequence

1 Met Gln Cys Asn Ala Pro Glu Trp Leu Pro  
11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Glu  
21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
51 Val Trp Thr Gly Ala Lys Asp Arg Cys Arg  
61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
71 Val Asn Gly Met Val His Val Ile Lys Gly  
81 Ile Gln Phe Gly Ser Gln Ile Lys Tyr Ser

SEQ ID No. 32 DNA sequence

SEQ ID No. 33 DNA sequence

SEQ ID No. 34 CM7/Cys-S-S-[MSWP-1] amino acid sequence

1	Met	Gln	Cys	Asn	Ala	Pro	Glu	Trp	Leu	Pro
11	Phe	Ala	Arg	Pro	Thr	Asn	Leu	Thr	Asp	Glu
21	Phe	Glu	Phe	Pro	Ile	Gly	Thr	Tyr	Leu	Asn
31	Tyr	Glu	Cys	Arg	Pro	Gly	Tyr	Ser	Gly	Arg
41	Pro	Phe	Ser	Ile	Ile	Cys	Leu	Lys	Asn	Ser
51	Val	Trp	Thr	Gly	Ala	Lys	Asp	Arg	Cys	Arg
61	Arg	Lys	Ser	Cys	Arg	Asn	Pro	Pro	Asp	Pro
71	Val	Asn	Gly	Met	Val	His	Val	Ile	Lys	Gly
81	Ile	Gln	Phe	Gly	Ser	Gln	Ile	Lys	Tyr	Ser
91	Cys	Thr	Lys	Gly	Tyr	Arg	Leu	Ile	Gly	Ser
101	Ser	Ser	Ala	Thr	Cys	Ile	Ile	Ser	Gly	Asp
111	Thr	Val	Ile	Trp	Asp	Asn	Glu	Thr	Pro	Ile
121	Cys	Asp	Arg	Ile	Pro	Cys	Gly	Leu	Pro	Pro
131	Thr	Ile	Ala	Asn	Gly	Asp	Phe	Thr	Ser	Ile
141	Ser	Arg	Glu	Tyr	Phe	His	Tyr	Gly	Ser	Val
151	Val	Thr	Tyr	His	Cys	Asn	Leu	Gly	Ser	Arg

53

161 Gly Lys Lys Val Phe Glu Leu Val Gly Glu  
171 Pro Ser Ile Tyr Cys Thr Ser Lys Asp Asp  
181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
191 Gln Cys Ile Ile Pro Asn Lys Cys-S-S-Cys

$\text{CO}_2\text{H}$

$\text{CONH}_2$

Asp Gly Pro Lys Lys Lys Lys Lys Lys Ser  
Pro Ser Lys Ser Ser Gly (N-Myristoyl)

SEQ ID No. 35: Amino acid sequence of peptide used in MSWP synthesis

1 Gly Ser Ser Lys Ser Pro Ser Lys Lys Lys  
11 Lys Lys Lys Pro Gly Asp Cys NH<sub>2</sub>

SEQ ID No. 36 CM15/cys amino acid sequence

1	Met	Gln	Cys	Asn	Val	Pro	Glu	Trp	Leu	Pro
11	Phe	Ala	Arg	Pro	Thr	Asn	Leu	Thr	Asp	Asp
21	Phe	Glu	Phe	Pro	Ile	Gly	Thr	Tyr	Leu	Asn
31	Tyr	Glu	Cys	Arg	Pro	Gly	Tyr	Ser	Gly	Arg
41	Pro	Phe	Ser	Ile	Ile	Cys	Leu	Lys	Asn	Ser
51	Val	Trp	Thr	Ser	Ala	Lys	Asp	Lys	Cys	Lys
61	Arg	Lys	Ser	Cys	Arg	Asn	Pro	Pro	Asp	Pro
71	Val	Asn	Gly	Met	Ala	His	Val	Ile	Lys	Asp
81	Ile	Gln	Phe	Arg	Ser	Gln	Ile	Lys	Tyr	Ser
91	Cys	Pro	Lys	Gly	Tyr	Arg	Leu	Ile	Gly	Ser
101	Ser	Ser	Ala	Thr	Cys	Ile	Ile	Ser	Gly	Asn
111	Thr	Val	Ile	Trp	Asp	Asn	Lys	Thr	Pro	Val
121	Cys	Asp	Arg	Ile	Ile	Cys	Gly	Leu	Pro	Pro
131	Thr	Ile	Ala	Asn	Gly	Asp	Phe	Thr	Ser	Ile
141	Ser	Arg	Glu	Tyr	Phe	His	Tyr	Gly	Ser	Val
151	Val	Thr	Tyr	His	Cys	Asn	Leu	Gly	Ser	Arg
161	Gly	Lys	Lys	Val	Phe	Glu	Leu	Val	Gly	Glu
171	Pro	Ser	Ile	Tyr	Cys	Thr	Ser	Lys	Asp	Asp
181	Gln	Val	Gly	Ile	Trp	Ser	Gly	Pro	Ala	Pro
191	Gln	Cys	Ile	Ile	Pro	Asn	Lys	Cys		

**中国书画函授大学肇庆分校**

SEQ ID No. 37 DNA sequence

1 CAGTGCAACG TGCCGGAATG G

SEQ ID No. 38 DNA sequence

1 CCATTCCGGA ACGTTGCACT G

SEQ ID No. 39 DNA sequence

1 GACTGATGAT TTTGAGTTCC

SEQ ID No. 40 DNA sequence

1 GGAACTCAAA ATCATCAGTC

SEQ ID No. 41 DNA sequence

1 GTCTGGACTA GTGCTAAGGA CAAGTGCAA CGTAAATCTT GTCG

SEQ ID No. 42 DNA sequence

1 CGACAAGATT TACGTTTGCA CTTGTCCTTA GCACTAGTCC AGAC

SEQ ID No. 43 DNA sequence

1 CGGCATGGCG CATGTGATCA AAGATATCCA GTTCCGATCG CAAATTAAAT  
51 ATTCTTGTCC TAAGGGTTAC CGTC

SEQ ID No. 44 DNA sequence

1 GACGGTAACC CTTAGGACAA GAATATTTAA TTTGCGATCG GAACTGGATA  
51 TCTTTGATCA CATGCGCCAT GCCG

SEQ ID No. 45 DNA sequence

1 CATCTCTGGT AATACTGTCA TTTGGGATAA TAAAACACCG GTTTGTGACC

SEQ ID No. 46 DNA sequence

1 GGTCACAAAC CGGTGTTTTA TTATCCCAA TGACAGTATT ACCAGAGATG

SEQ ID No. 47 DNA sequence

1 GACCGAATTA TCTGTGGTCT G

SEQ ID No. 48 DNA sequence

1 CAGACCACAG ATAATTCGGT C

SEQ ID No. 49 CM15/cys-MSWP1 amino acid sequence

0930662-1099

1 Met Gln Cys Asn Val Pro Glu Trp Leu Pro  
 11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Asp  
 21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
 31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
 41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
 51 Val Trp Thr Ser Ala Lys Asp Lys Cys Lys  
 61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
 71 Val Asn Gly Met Ala His Val Ile Lys Asp  
 81 Ile Gln Phe Arg Ser Gln Ile Lys Tyr Ser  
 91 Cys Pro Lys Gly Tyr Arg Leu Ile Gly Ser  
 101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asn  
 111 Thr Val Ile Trp Asp Asn Lys Thr Pro Val  
 121 Cys Asp Arg Ile Ile Cys Gly Leu Pro Pro  
 131 Thr Ile Ala Asn Gly Asp Phe Thr Ser Ile  
 141 Ser Arg Glu Tyr Phe His Tyr Gly Ser Val  
 151 Val Thr Tyr His Cys Asn Leu Gly Ser Arg  
 161 Gly Lys Lys Val Phe Glu Leu Val Gly Glu  
 171 Pro Ser Ile Tyr Cys Thr Ser Lys Asp Asp  
 181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
 191 Gln Cys Ile Ile Pro Asn Lys Cys-S-S-Cys

CO<sub>2</sub>H CONH<sub>2</sub>

Asp Gly Pro Lys Lys Lys Lys Lys Lys Ser  
 Pro Ser Lys Ser Ser Gly (N-Myristoyl)

SEQ ID No. 50 CM16/cys amino acid sequence

1 Met Gln Cys Asn Val Pro Glu Trp Leu Pro  
 11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Asp  
 21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
 31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
 41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
 51 Val Trp Thr Ser Ala Lys Asp Lys Cys Lys  
 61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
 71 Val Asn Gly Met Ala His Val Ile Lys Asp  
 81 Ile Gln Phe Arg Ser Gln Ile Lys Tyr Ser  
 91 Cys Pro Lys Gly Tyr Arg Leu Ile Gly Ser

09360682-101999

56

101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asn  
 111 Thr Val Ile Trp Asp Asn Lys Thr Pro Val  
 121 Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro  
 131 Thr Ile Ala Asn Gly Asp Phe Thr Ser Ile  
 141 Ser Arg Glu Tyr Phe His Tyr Gly Ser Val  
 151 Val Thr Tyr His Cys Asn Leu Gly Ser Arg  
 161 Gly Lys Lys Val Phe Glu Leu Val Gly Glu  
 171 Pro Ser Ile Tyr Cys Thr Ser Lys Asp Asp  
 181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
 191 Gln Cys Ile Ile Pro Asn Lys Cys

SEQ ID No. 51 CM16/cys-MSWP1 amino acid sequence

1 Met Gln Cys Asn Val Pro Glu Trp Leu Pro  
 11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Asp  
 21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
 31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
 41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
 51 Val Trp Thr Ser Ala Lys Asp Lys Cys Lys  
 61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
 71 Val Asn Gly Met Ala His Val Ile Lys Asp  
 81 Ile Gln Phe Arg Ser Gln Ile Lys Tyr Ser  
 91 Cys Pro Lys Gly Tyr Arg Leu Ile Gly Ser  
 101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asn  
 111 Thr Val Ile Trp Asp Asn Lys Thr Pro Val  
 121 Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro  
 131 Thr Ile Ala Asn Gly Asp Phe Thr Ser Ile  
 141 Ser Arg Glu Tyr Phe His Tyr Gly Ser Val  
 151 Val Thr Tyr His Cys Asn Leu Gly Ser Arg  
 161 Gly Lys Lys Val Phe Glu Leu Val Gly Glu  
 171 Pro Ser Ile Tyr Cys Thr Ser Lys Asp Asp  
 181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
 191 Gln Cys Ile Ile Pro Asn Lys Cys-S-S-Cys

CO<sub>2</sub>H CONH<sub>2</sub>

Asp Gly Pro Lys Lys Lys Lys Lys Lys Ser  
 Pro Ser Lys Ser Ser Gly (N-Myristoyl)

Seq ID No. 52 DNA sequence

0938068-10199

57

1 CGCACCGCAG TGCATCATCC CGAACAAAGA TGGCCCGAGC GAAATTCTGC  
51 GTGGCGATTT TAGCAGCTGC TA

Seq ID No. 53 DNA sequence

1 AGCTTAGCAG CTGCTAAAAT CGCCACGCAG AATTTCGCTC GGGCCATCTT  
51 TGTTCGGGAT GATGCACTGC GGTGCGGGCC

SEQ ID NO. 54: CM7rgdcys amino acid sequence

1 Met Gln Cys Asn Ala Pro Glu Trp Leu Pro  
11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Glu  
21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
51 Val Trp Thr Gly Ala Lys Asp Arg Cys Arg  
61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
71 Val Asn Gly Met Val His Val Ile Lys Gly  
81 Ile Gln Phe Gly Ser Gln Ile Lys Tyr Ser  
91 Cys Thr Lys Gly Tyr Arg Leu Ile Gly Ser  
101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asp  
111 Thr Val Ile Trp Asp Asn Glu Thr Pro Ile  
121 Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro  
131 Thr Ile Ala Asn Gly Asp Phe Thr Ser Ile  
141 Ser Arg Glu Tyr Phe His Tyr Gly Ser Val  
151 Val Thr Tyr His Cys Asn Leu Gly Ser Arg  
161 Gly Lys Lys Val Phe Glu Leu Val Gly Glu  
171 Pro Ser Ile Tyr Cys Thr Ser Lys Asp Asp  
181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
191 Gln Cys Ile Ile Pro Asn Lys Asp Gly Pro  
201 Ser Glu Ile Leu Arg Gly Asp Phe Ser Ser  
211 Cys

Seq ID No. 55 DNA sequence

1 CGCACCGCAG TGCATCATCC CGAACAAAGC GGCGCCGAGC GTGATTGGCT  
51 TCCGTATTCT GCTGCTGAAA GTGGCGGGCT GATA

Seq ID No. 56 DNA sequence

09380682.101999



58

1 AGCTTATCAG CCCGCCACTT TCAGCAGCAG AATACGGAAG CCAATCACGC  
51 TGGGCGCCGC TTTGTTCGGG ATGATGCACT GCGGTGCGGG CC

SEQ ID NO. 57: CM7Tcell amino acid sequence

1 Met Gln Cys Asn Ala Pro Glu Trp Leu Pro  
11 Phe Ala Arg Pro Thr Asn Leu Thr Asp Glu  
21 Phe Glu Phe Pro Ile Gly Thr Tyr Leu Asn  
31 Tyr Glu Cys Arg Pro Gly Tyr Ser Gly Arg  
41 Pro Phe Ser Ile Ile Cys Leu Lys Asn Ser  
51 Val Trp Thr Gly Ala Lys Asp Arg Cys Arg  
61 Arg Lys Ser Cys Arg Asn Pro Pro Asp Pro  
71 Val Asn Gly Met Val His Val Ile Lys Gly  
81 Ile Gln Phe Gly Ser Gln Ile Lys Tyr Ser  
91 Cys Thr Lys Gly Tyr Arg Leu Ile Gly Ser  
101 Ser Ser Ala Thr Cys Ile Ile Ser Gly Asp  
111 Thr Val Ile Trp Asp Asn Glu Thr Pro Ile  
121 Cys Asp Arg Ile Pro Cys Gly Leu Pro Pro  
131 Thr Ile Ala Asn Gly Asp Phe Thr Ser Ile  
141 Ser Arg Glu Tyr Phe His Tyr Gly Ser Val  
151 Val Thr Tyr His Cys Asn Leu Gly Ser Arg  
161 Gly Lys Lys Val Phe Glu Leu Val Gly Glu  
171 Pro Ser Ile Tyr Cys Thr Ser Lys Asp Asp  
181 Gln Val Gly Ile Trp Ser Gly Pro Ala Pro  
191 Gln Cys Ile Ile Pro Asn Lys Ala Ala Pro  
201 Ser Val Ile Gly Phe Arg Ile Leu Leu Leu  
211 Lys Val Ala Gly

09380662.101999